

# THE NEW JERSEY TOXICS REDUCTION WORKPLAN FOR NY-NJ HARBOR



## NEXT STEPS

Joel A. Pecchioli

Division of Science, Research & Technology

NJ Department of Environmental Protection

Trenton, NJ

(609) 633-2200

[joel.pecchioli@dep.state.nj.us](mailto:joel.pecchioli@dep.state.nj.us)

# CURRENT ACTIVITIES



⌘ Compile Sample Data & Metadata for 2000 & 2001  
and transmit to Hydroqual

- ★ QA Data Verification Review

- ★ Blank Correction of Raw Data

- ★ Database Development

⌘ CSO/SWO & Tributary HOT Sampling (Wet)

⌘ Newark Bay Hydrodynamics Special Study

ॐ Analyze and Synthesize Data

# HEP CONTAMINANT ASSESSMENT & REDUCTION PROJECT (CARP)

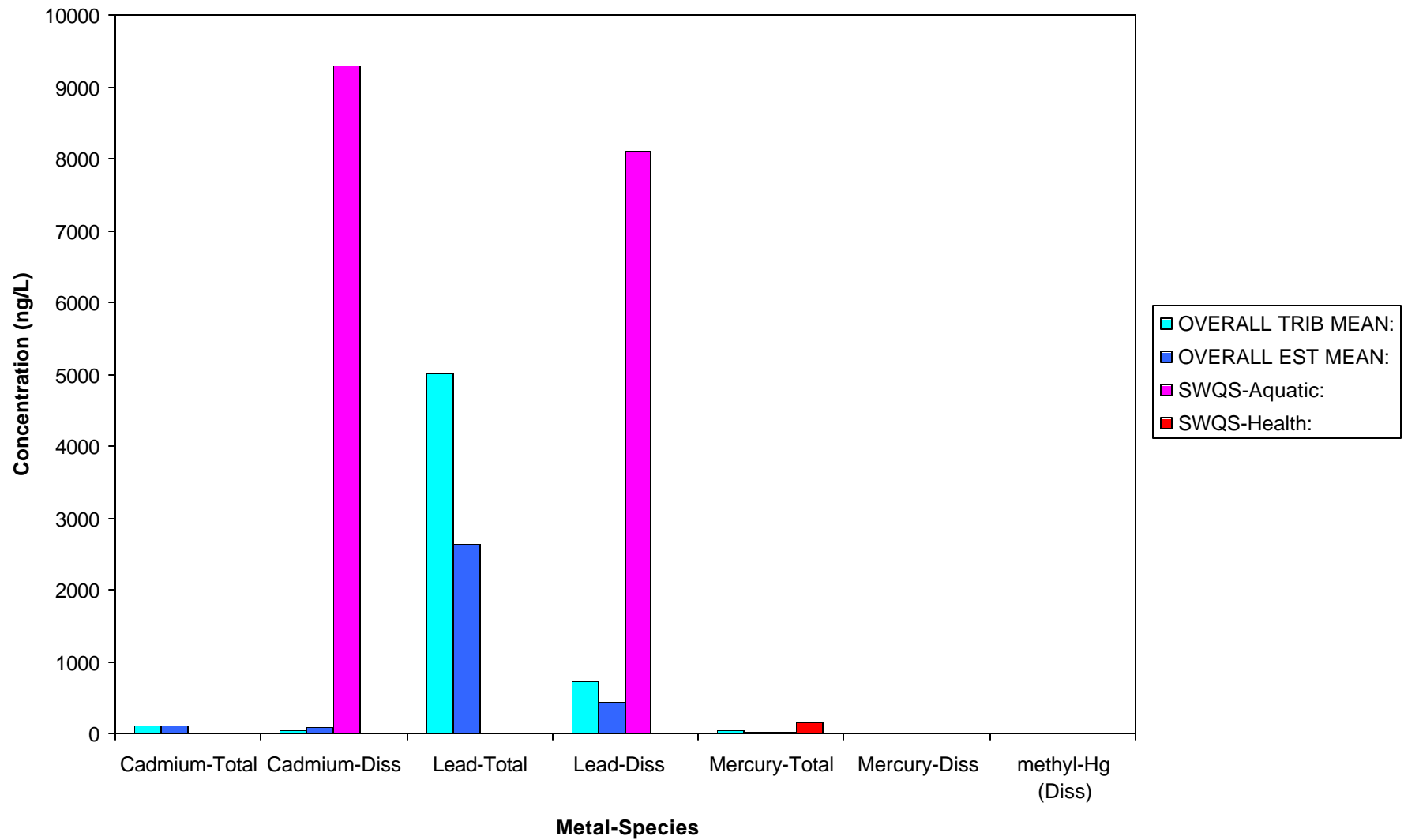


- ⌘ What is the relative importance of specific loadings (discharges) of toxic contaminants to the quality of dredged material in the harbor today?
- ⌘ What management actions to reduce contamination will produce the greatest overall benefits, both in time and area extent?

➔ Trackdown Activities

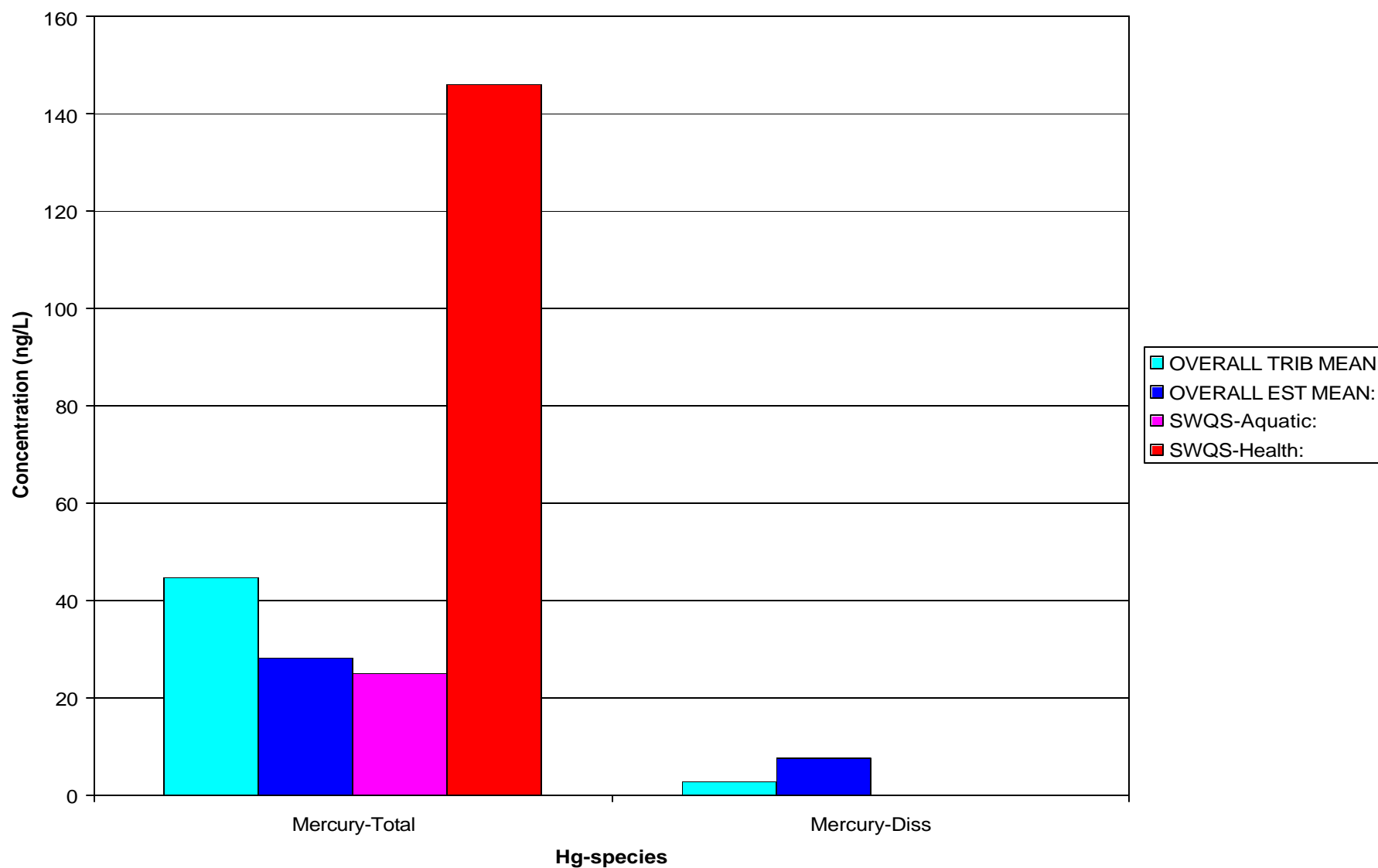
# What Contaminants are a Significant Problem?

NJTRWP Metals Data - Overall Tributary & Estuary Means



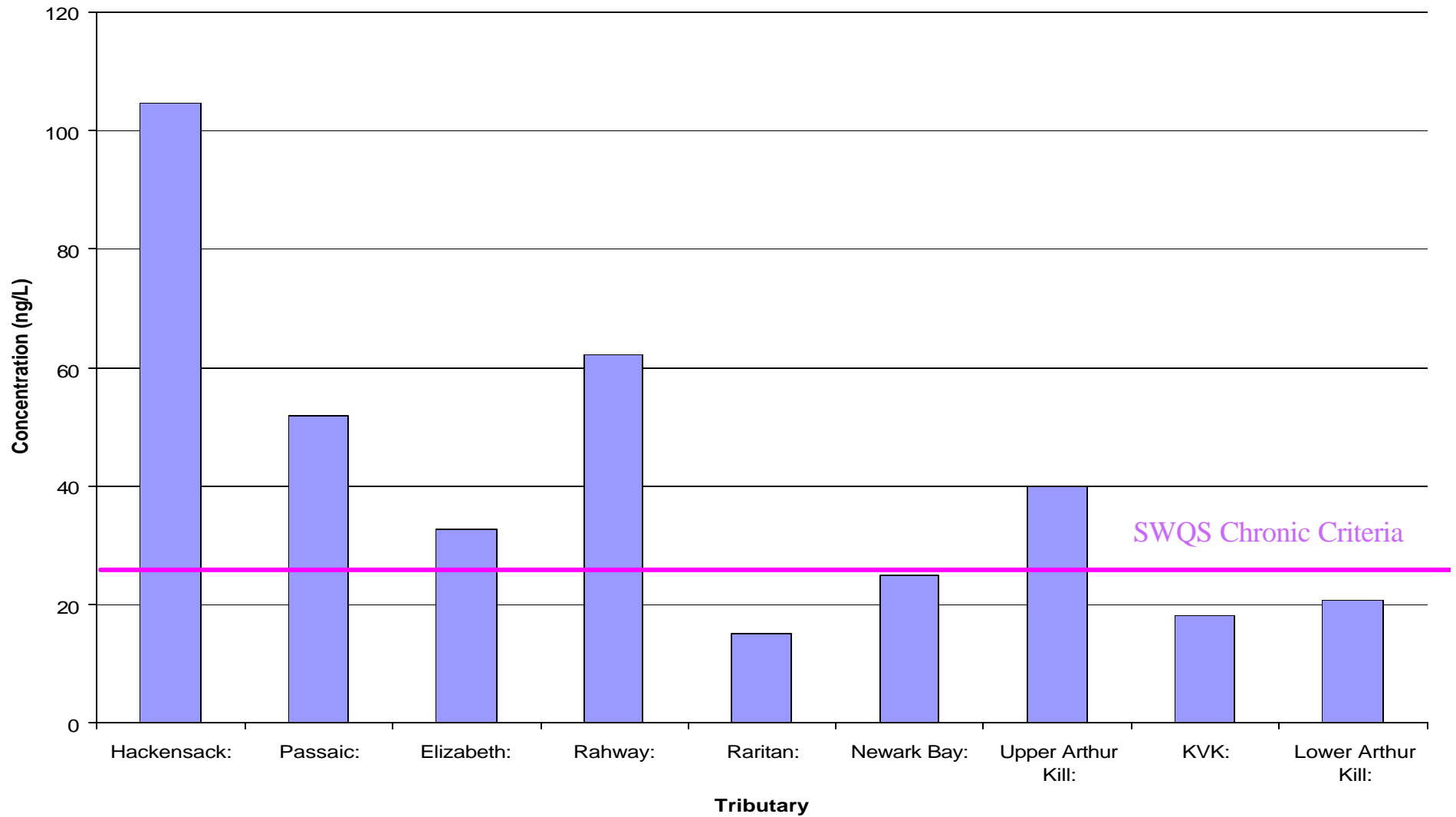
# Is Mercury a Significant Problem?

NJTRWP Tributary & Estuary Hg Data - Overall Means



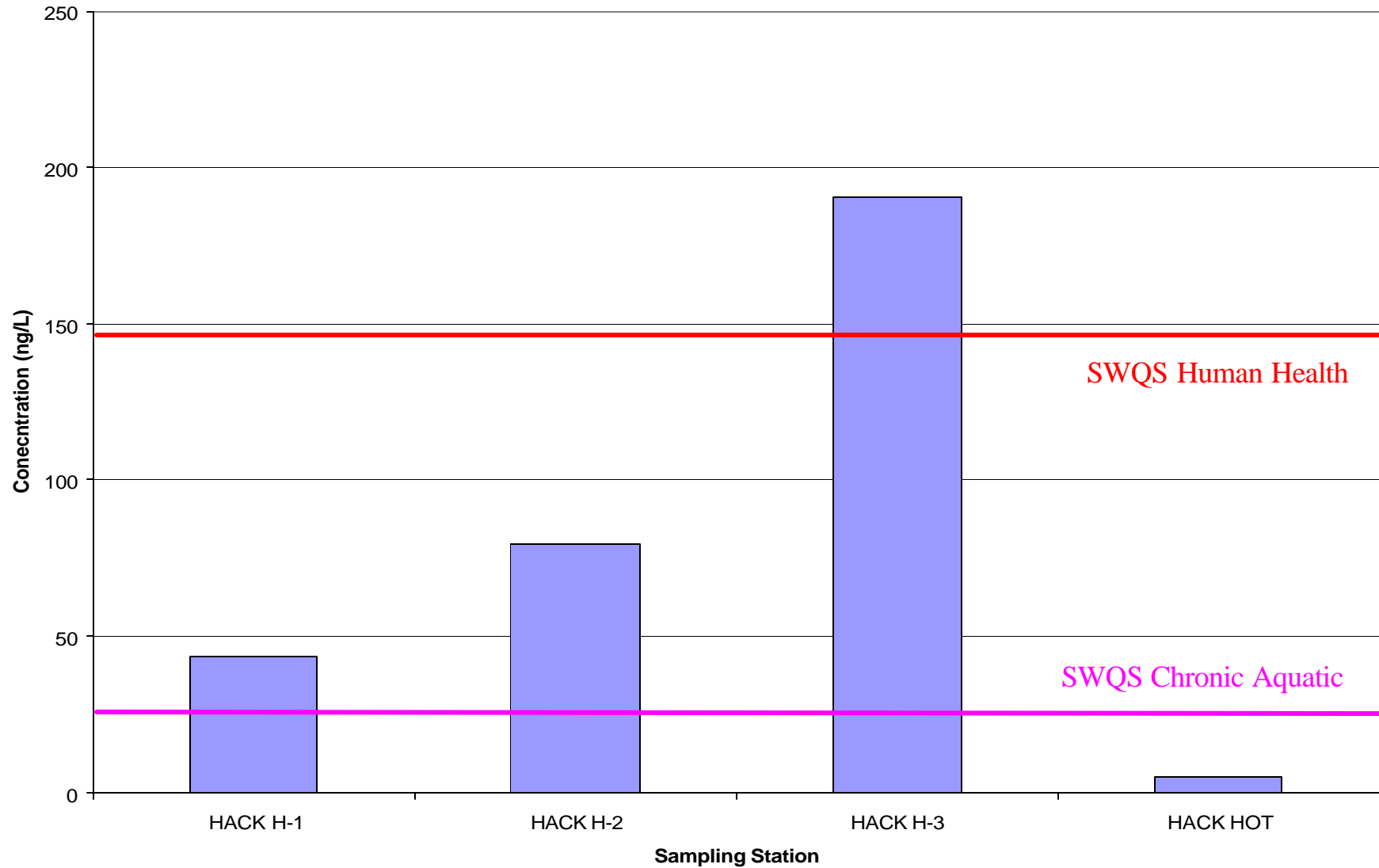
# Where is Mercury a Problem?

Tributary & Estuary Total-Hg Mean Values



# Where in the Hackensack is Mercury a Problem?

Hackensack River Mean Total-Hg Values



# AREAS FOR ADDITIONAL WORK



- ⌘ Contaminant & Sediment fluxes in Newark Bay
- ⌘ Effects of Flood vs Ebb Tides & Spring vs Neap Tides on sediment & contaminant transport
- ⌘ Distribution of Mercury within the Hackensack River
- ⌘ Additional CSO/SWO sampling
- ⌘ Trackdown of chemicals within POTW systems (eg. PCB 11)
- ⌘ Bottom sediment data
- ⌘ Industrial discharges, landfill leachate, etc.



# NJTRWP PHASE I OUTCOMES



## ⌘ Phase I Study Reports

- ❖ Data Compilation, Analysis & Synthesis
- ❖ Contaminant Loading/Distribution Estimates
- ❖ Conclusions & Recommendations

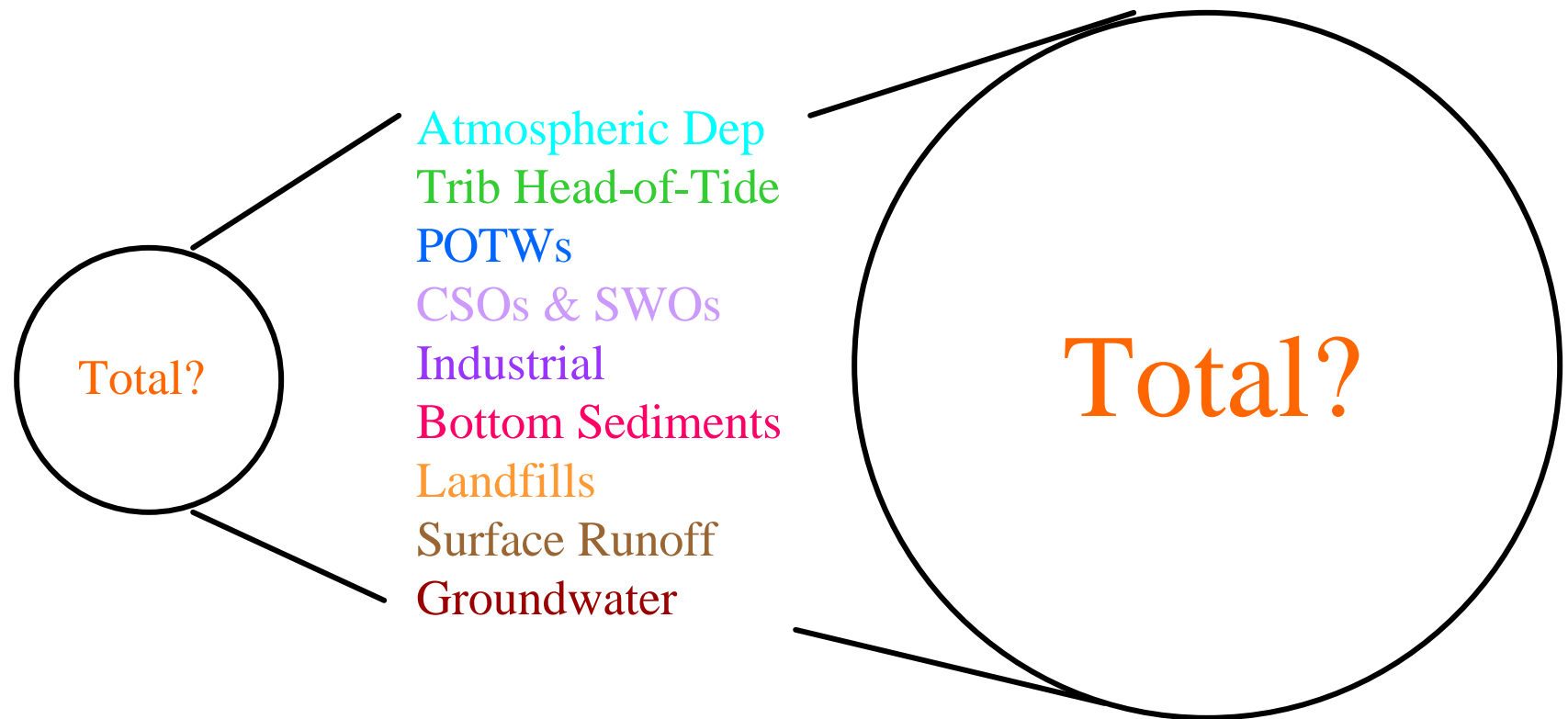
## ॐ Integration of Water Quality & Hydrodynamics Data

## ⌘ Distribution of Contaminants in Harbor - Identify Areas of the Harbor & Contaminants for Focused Study

## ⌘ Data Loaded onto CARP Database - Baseline Information

## ➔ Draft NJTRWP Implementation Report


## SOURCES & LOADS - HOW BIG is the PIE?



How Big are the Slices?

## Current “Fuzzy” Picture of Toxics in the Harbor



A faded background image of a person walking a dog on a leash in a park. The person is wearing a light-colored jacket and pants, and the dog is a black and white breed. The text "Data + Analysis = Clearer Picture" is overlaid in red.

**Data + Analysis = Clearer Picture**



Look what I found!!